

November 20, 2020

## KEY TAKEAWAYS

- Cases are surging nationally. More than 1 million cases were reported in the US over the last 7 days according to the [CDC](#).
- Nationally, incidence almost doubled over the past two weeks.
- In Virginia incidence is growing more slowly, but steadily.
- Surges in populous Fairfax and Loudoun, and slow growth in other metro areas, portend rapid case growth statewide.
- Statewide, the reproduction rate has been above 1.0 since late September. It remains above 1.0 in most regions as well.
- Virginians should take extra precautions over Thanksgiving, including avoiding travel, indoor gatherings, and visiting persons at high risk, and isolating before or after any risky holiday activities.
- **Due to the holiday, there will be no model updates next week.**

**209,092**

Cases Expected by  
Thanksgiving

**1.091**

Reproduction Rate

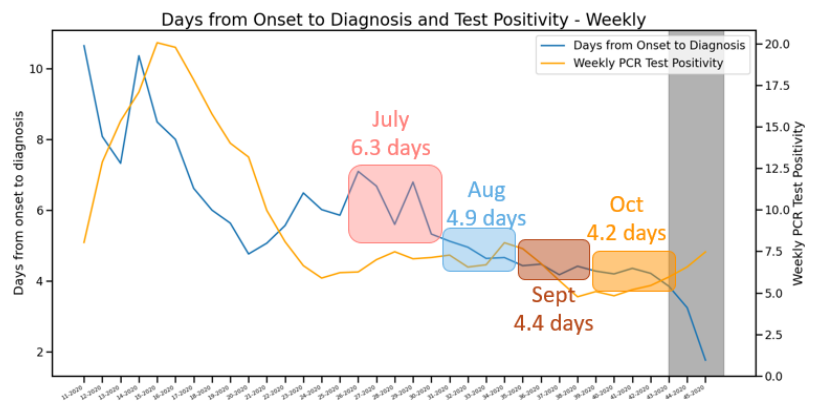
Based on onset date  
7 days ending Nov 7

## KEY FIGURES

### Reproduction Rate

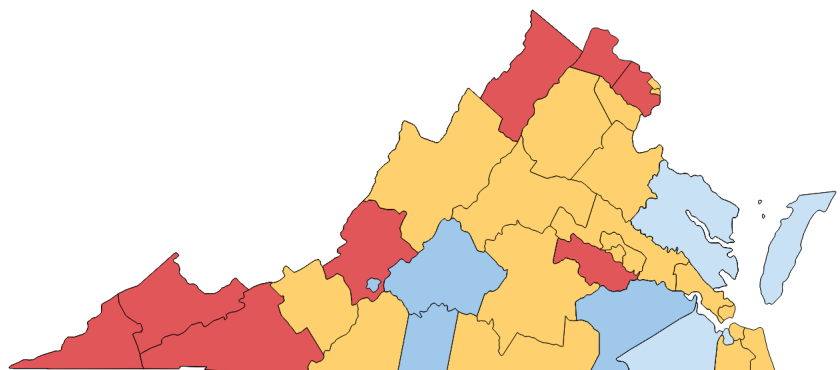
Region	R <sub>e</sub> Nov 7	Weekly Change
State-wide	1.091	0.086
Central	1.138	0.209
Eastern	1.091	-0.008
Far SW	1.191	0.205
Near SW	0.859	-0.094
Northern	1.172	0.111
Northwest	1.199	0.199

### Case Detection



### Growth Trajectories: 8 Health Districts in Surge

Status	# Districts (last week)
Declining	4 (2)
Plateau	4 (8)
Slow Growth	19 (17)
In Surge	8 (8)



## THE MODEL

The UVA COVID-19 Model and the weekly results are provided by the UVA Biocomplexity Institute, which has over 20 years of experience crafting and analyzing infectious disease models. It is a (S)usceptible, (E)xposed, (I)nfectious, (R)ecovered epidemiologic model designed to evaluate policy options and provide projections of future cases based on the current course of the pandemic.

*COVID-19 is a novel virus causing an unprecedented global pandemic and response. The model improves as we learn more about it.*

## THE PROJECTIONS

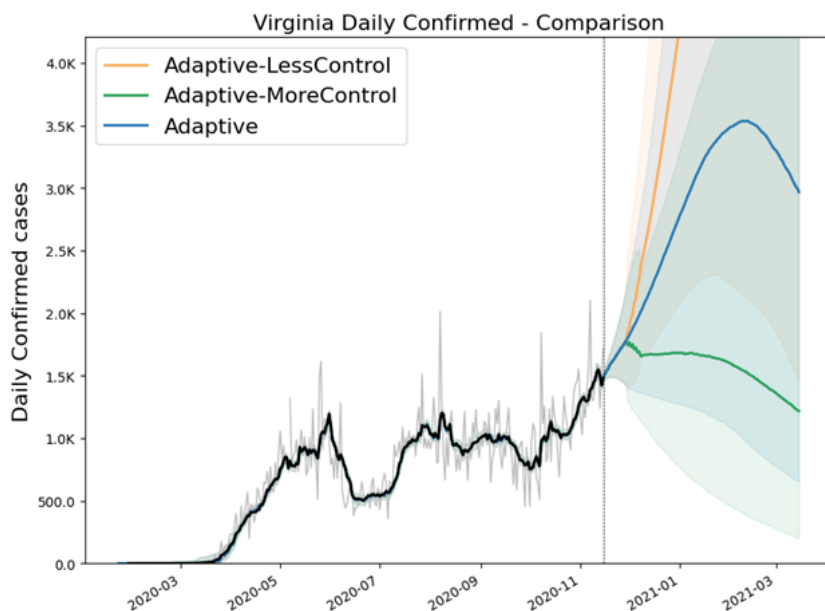
The UVA team continues to improve the model weekly. The UVA model now uses an "adaptive fitting" methodology, where the model precisely traces past and current trends and uses that information to predict future cases. These new projections are based on recent trends the model learns through its precise fitting of each individual county's cases. The new model also includes two "what-if" scenarios to forecast how case growth may respond to seasonal effects, such as changing weather patterns and holiday travel. These "what-if" scenarios are:

**Less control of seasonal effects:** 15% increase in transmission starting November 26, 2020

**More control of seasonal effects:** 15% decrease in transmission starting November 26, 2020

## MODEL RESULTS

With the adaptive modeling approach, the current course predicts that confirmed cases continue to increase through model projection period **peaking at almost 25,000 weekly cases on February 14**. If we continue on this trajectory, we would expect over 209,000 total confirmed cases by Thanksgiving. However, there are a number of risks on that could influence case growth over the next several weeks, including winter weather, the holiday season, and a national surge in cases. If these result in a jump in case growth, cases could peak at over 45,000 per week by mid-February. However, if Virginians respond by improving prevention efforts such as hand washing, social distancing, wearing masks, and avoiding indoor gatherings, cases could peak in early December, at just under 12,000 cases per week. Virginia's health is in our hands. Follow guidance in the [Forward Virginia](#) plan to help control COVID.



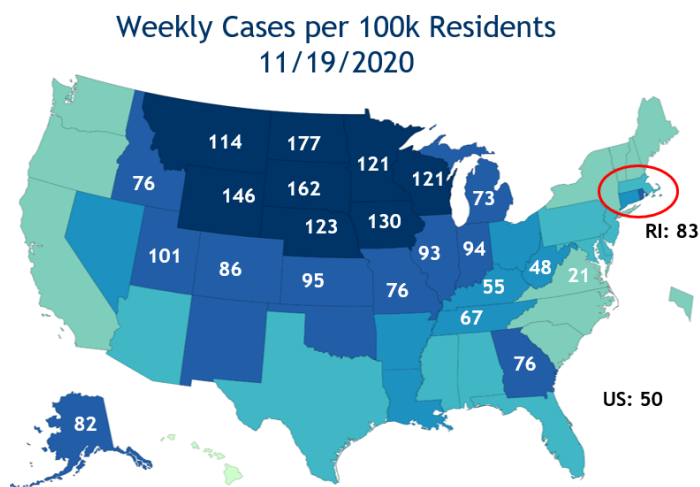
## HOLIDAY STRESS

For the past several weeks experts have been warning that cold weather, the holidays, and "COVID fatigue" could result in a surge of COVID-19 cases. Unfortunately, these warnings have proven prescient. Cases are surging nationally and growing in Virginia, even before the rapid rise that could occur following Thanksgiving travel and gatherings. In response, Governor Northam announced new public health restrictions, including limiting gatherings to no more than 25 persons. Yesterday, the CDC issued new guidance for Thanksgiving, including a "strong recommendation" to avoid travel.



"We've got another holiday to worry about. It seems Thanksgiving Day is upon us."  
— Charlie Brown

## The COVID-19 Situation



According to the CDC, "[m]ore than 1 million COVID-19 cases were reported in the United States over the last 7 days." Weekly incidence nearly doubled in two weeks, from 27 per 100k US residents during the week ending Nov 4 to 50 per 100k this week. In Virginia, case growth continues to defy surges in neighboring states, creeping upward slowly instead. However, there are worrying signs that the exceptionally high incidence occurring in Southwest Virginia and some neighboring states is making its way into more populous regions, including surging cases in Fairfax and Loudoun Health Districts. If this continues, Virginia could quickly join neighboring states with very high incidence. Hospitalizations are also beginning to rise precipitously, and predictably. Hospitalizations generally follow trends in cases with a 2-3 week lag.

## What Are the Holiday Risks?

It is very concerning that national surges are occurring before winter solstice (Dec. 21) and before the holiday season is in full swing. Our partners at RAND Corporation expect the risks from these factors to peak in December and January, while the benefits of a vaccine will only begin to be felt in January at the earliest. The holidays entail multiple risks. Hundreds of thousands of Virginia students returning home for the holidays could join an expected 50 million holiday travelers nationally. Family and community gatherings have become a significant source of COVID-19 spread in Virginia. Holiday gatherings often include high-risk members. Our partners at RAND Corporation expect that in most of Virginia 1 in 10 gatherings of 10 people will include at least one person with COVID-19. That doubles to 2 in 10 for gatherings of 20 people. The risk is higher in Southwest Virginia. There, 1 in 3 gatherings with 20 people are expected to have at least one person with COVID-19. For larger gatherings, or those including travelers - especially travelers from high risk areas - the risk increases quickly.

## Protect Yourself and Your Loved Ones this Holiday Season

It is painful to miss our holiday traditions and visits with family, especially after months of social distancing. However, it is more painful to lose a loved one, or to see them battle the potential long-term effects of COVID-19. Follow the CDC recommendations for holiday events. Socially distanced, outdoor gatherings decrease the risk of transmission. Fortunately, the weather in much of Virginia appears to be cooperating. Take advantage if you can do so socially distanced and safely. However, all of us may need to make sacrifices this holiday season. Avoid travel if possible, especially to or from areas with high incidence. If you must travel or gather indoors, isolate before and afterwards. Check the VDH traveler information and the CDC's Travel Planner for local COVID-19 travel information. Finally, take extra precautions or avoid visiting persons at high risk. Virginia's health--and your family's health--is in your hands.